THE FISHES OF NANTUCKET.

BY DR. BENJAMIN SHARP AND HENRY W. FOWLER.

Fish are taken in Nantucket by hand-lines, trolling, line-trawls, drift- and set-nets and pounds or traps. Hand-lining is employed for scup, plaice, flatfish, cod, haddock, and in times past for dogfish and halibut. The line-trawls are used in the spring and fall for cod and haddock, drift-nets in the spring for mackerel, set-nets in the summer and fall for bluefish and bonito. The two pounds fixed in water of about 4 fathoms are inside, that is on the west of Great Point, about midway between the Koskata U.S. Life Saving Station and Great Point Lighthouse. These pounds are the property of the Petrel Fishing Company, which employs a small steamer and a sailboat. Every species of commercial fish found about the island has been taken in the pound, and many others mentioned in this list. Bluefish are very rarely found in them. During the spring of the year the steamer Petrel is employed drifting for mackerel off the south side of the islands of Nantucket and Tuckernuck. During the summer she steams around the island for bluefish and an occasional trip is made for swordfish, when she cruises some 30 or 40 miles from the land. The bluefish are taken by sweeping nets around a school of fish. This is done by dories which put out from the steamer when a school is discovered.

The steamer Waquoit is also employed in fishing for mackerel, sword-fish and bluefish. This steamer and the Petrel are the only two steam fishing-boats owned in Nantucket.

The line-trawls are used in the spring and fall in the cod and haddock fisheries. These are set from dories which put out from the beaches on the south and east sides of the island when the weather permits, and on returning are hauled up out of the surf to a safe place and the fish carted to town.

At Quidnet there are a number of houses where the Portuguese salt codfish. Salting and drying codfish is also carried on by a number of fishermen from the Cape. They have established a small village on Coatuc ("New Chatham"), and in catboats sail out of the "opening" at the head of the harbor and fish off the eastern side of the island.

A gasoline-power boat, the San Antonio, has recently been built by

some enterprising Portuguese on Nantucket, and is employed in various kinds of fishing about the island.

The set-nets, used in the fall for catching bonito, are hung in the "Cod" of the Bay—the sheet of water enclosed by the arm of the island called Great Point.

Collections of Nantucket fishes have been made by the senior writer and presented by him to the Academy of Natural Sciences of Philadelphia. The * affixed to certain species indicates that material from this source has been examined.

In conclusion, we wish to thank the members of the "Petrel Company" for their kindness and interest in helping us in this work.

PETROMYZONTIDÆ.

Petromyzon marinus Linnæus. ("Lamprey.")

Specimen taken in the pound, April 28, 1904, about 3 feet in length.

GALEORHINIDÆ.

*Mustelus canis (Mitchill).

Found associated with Squalus acanthias.

Prionace glauca (Linnæus). ("Blue Dog." "Man-eater.")

Caught with the sand shark (Carcharias littoralis), but by no means so common.

"Sharking" is one of the sports of the island. Those caught are not used now commercially. Some years ago, when "sharking" was carried on regularly at Wawinet, a village at the head of the harbor, the livers of all the sharks caught were saved, dried out in the sun and the oil shipped away.

Carcharhinus obscurus (Le Sueur)?

About 6 or 8 examples probably of this or some closely related species have been taken at various times at or near Great Point. A large example was taken by the senior writer during the summer of 1877, weighing 650 pounds. It measured 11 feet 6 inches.

SPHYRNIDÆ.

*Sphyrna zygæna (Linnæus).

Two examples seen. One washed ashore many years ago, and another taken in a set-net September 25, 1903. The latter examined by the junior writer.

ALOPIIDÆ.

Alopias vulpes (Gmelin). ("Thrasher.")

Two examples seen. Both taken at Great Point, one with a line and the other in the pound. The tail of the latter measured $7\frac{1}{2}$ feet.

LAMNIDÆ.

Isurus dekayi (Gill)? ("Mackerel Shark.")

Taken in the spring in the mackerel drift-nets.

CARCHARIIDÆ.

*Carcharias littoralis (Mitchill). ("Sand Shark.")

This is the commonest shark in these waters. They are taken on lines and sometimes rolled up in the set-nets. Occasionally in the harbor. A small one was taken a few years ago in one of the docks. It measured about 5 feet.

SQUALIDÆ.

Squalus acanthias Linnæus. ("Dog Fish.")

They breed on the bar in May. Some years ago they were regularly fished for by sailboats. They were so plentiful that it was the custom to break off the barb of the hook to make it easier to get the fish off when caught. They are a great nuisance to the mackerel fishermen, not only in tearing the nets, but in mangling the mackerel already in the net. In October, 1903, for two or three days they filled up the pounds.

RAJIDÆ.

Raja erinacea Mitchill. ("Skate.")

Common all about the island and associated with—

Raja lævis (Mitchill). ("Skate.")

MYLIOBATIDÆ.

Rhinoptera bonasus (Mitchill).

Only one specimen seen. Taken in the pound, October 16, 1902.

ACIPENSERIDÆ.

Acipenser sturio Linnæus. ("Sturgeon.")

Often seen "breaking" (jumping out of water) on still days off the east end of the island. Occasionally taken in the nets.

ANGUILLIDÆ.

*Anguilla chrisypa Rafinesque. (" Eel.")

Taken by spearing in shallow water in the harbor and in Madequet "creek," a tide-water stream at the western end of the island. They are also taken at night torching and with the "bob." In winter holes are cut in the ice and the eel-spear thrust through into the mud and many eels taken. This was especially resorted to in the long freeze-up

of 1904. A perfect albino specimen was taken by Henry Folger in the spring of 1903 and is now in the Academy's collection.

ELOPIDÆ.

*Elops saurus Linnæus. ("Lady Fish.")

Taken in the pound in October, 1903.

CLUPEIDÆ.

Clupea harengus Linnæus. ("Herring.")

Taken in the spring by opening the south head of the Hummock pond (fresh-water) to the sea. As they run in they are scooped out with hand-nets. Many remain through the summer in the pond after it is closed. They are also taken in the pound.

Pomolobus pseudoharengus (Wilson)? ("Herring.")

Alosa sapidissima (Wilson). ("Shad.")

A few taken in the pound in the spring of 1901. Tradition says that they were common about the island before the bluefish became so numerous. Thirty-six taken April 29, 1904, and 30 taken May 7, 1904, in the pounds.

*Brevoortia tyrannus (Latrobe). ("Menhaden.")

SALMONIDÆ.

Salmo salar Linnæus. ("Salmon.")

One weighing $3\frac{1}{2}$ pounds taken off Tuckernuck in the mackerel driftnets of the Waquoit on the night of May 6 and 7, 1904.

PŒCILIIDÆ.

*Fundulus majalis (Walbaum). ("Cat Fish.")

Caught with the following about the wharves by boys, and the name given as they are caught for cats' food.

*Fundulus heteroclitus macrolepidotus (Walbaum). ("Cat Fish.")

Abundant about the wharves. Used with the above for bait for place fish.

SYNGNATHIDÆ.

Siphostoma fuscum (Storer). ("Pipe Fish.")

Common on the bars in August and September. Associated with and closely resembling floating eel-grass. This is undoubtedly a case of color and form protection.

¹A spotted eel about four feet long has been noticed by the senior writer. Three specimens were seen at different times, one on exhibition four or five years ago and two were seen in October, 1902, which were sent to Albany by Sydney Fisher. They were called Conger Eels by the fishermen, and thought to be related to Murana ocellata.

ATHERINIDÆ

*Menidia notata (Mitchill).

BELONIDÆ.

*Tylosurus acus (Lacépède). ("Bill Fish.")

Rare. One taken September 23, 1901, and another August, 1903, in the pound.

SCOMBRIDÆ.

Scomber scombrus Linnæus. ("Mackerel.")

Caught in drift-nets which are set at night off the south side of the island in the spring of the year. Sometimes in the fall they are taken on hand-lines in Nantucket Sound. Some taken also in the pounds. First taken (in the pound) in 1904, April 28. On April 29, 32 taken; on May 6 and 7, 160 taken by steamer Waquoit "drifting" off south side.

Thunnus thynnus (Linnæus). ("Horse Mackerel.")

Caught around the island by the *Petrel* with swordfish gear, and also in the pounds. Schools of 60 or 70 have been seen.

Sarda sarda (Bloch). ("Bonito.")

Caught in set-nets through September and October, rarely caught trolling.

Scomberomorus maculatus (Mitchill). ("Spanish Mackerel.")

TRICHIURIDÆ.

*Trichiurus lepturus Linnæus. ("Hair Tail.")

Three large examples secured, four in all, taken in the pound in July, 1903.

XIPHIIDÆ.

Xiphias gladius Linnæus. ("Sword Fish.")

Common in July off the south side of the island, from 20 to 40 miles from the land. They are taken by the ordinary swordfish gear by the steamers *Petrel* and *Waquoit*. Many years ago sailboats from Nantucket made a business of swordfishing.

CARANGIDÆ.

*Seriola zonata (Mitchill). ("Rudder Fish.")

Taken in pound, 1903.

*Caranx crysos (Mitchill). ("Yellow Tail.")

Taken in pound, 1903.

Selene vomer (Linnæus). ("Moon Fish.")

A small example taken in the pound, September 26, 1901.

Trachinotus carolinus (Linnæus). ("Pompano.")

Two examples taken in the pound, September, 1901.

POMATOMIDÆ.

Pomatomus saltatrix (Linnæus). ("Blue Fish.")

These are taken by trolling in the Rips—Muskeget Rip, Great Point Rip and Bass Rip (off Sankaty Head)—and for many years great numbers were caught by boats in the opening which broke through some fifty years ago between Nantucket and Tuckernuck. This place is now given up. When the bluefish first became common about the island, in the early 60's, they were caught in the harbor, now they are rarely seen there. Set-nets were also used, but of late these are but little used. The *Petrel* gets them off the south and east ends of the island by means of sweep-nets. When a school is seen—and this can be done at some distance by the terns which hover over them—the net is shot from dories and pulled around the school, the fish in darting away get gilled and are then taken from the net.

"Heaving and hauling"—i.e., throwing a drail or leaded hook from the shore and hauling in—is now occasionally done at the south shore, and on September 26, 1903, an example weighing 27 pounds was taken. This is considerably larger than the largest heretofore reported by Jordan and Evermann, Food and Game Fishes, 1902, p. 321, where one weighing 22 pounds and measuring 3 feet in length is mentioned.

Up to 1880 hundreds were often ϵ aught in an afternoon from the south shore.

CENTROLOPHIDÆ.

*Palinurichthys perciformis (Mitchill). ("Rudder Fish.")

STROMATEIDÆ.

*Rhombus triacanthus (Peck). ("Butter Fish." "Butter Scup.")

These have never been known to take a hook. All the specimens are taken in the pounds, as many as twenty barrels having been obtained in a day. The first taken in 1904 was on May 6, and two the next day.

PERCIDÆ.

Perca flavescens (Mitchill). ("Pond Fish." "Perch.")
Only taken in the fresh-water ponds, and very abundant.

SERRANIDÆ.

Roccus lineatus (Bloch). ("Striped Bass.")

Rarely taken on the scup grounds.

Centropristes striatus (Linnæus). ("Black Bass.")

In October, 1903, about ten barrels were taken one day from the pounds. Occasionally taken on the scup grounds.

SPARIDÆ.

*Stenotomus chrysops (Linnæus). ("Seup" [abbreviation of Indian word Mishcuppauog].)

This is an important food fish, and until the introduction of the pounds was only taken by hand-lines. They arrive in these waters about June 1. The first fish are always the largest. Later in the season smaller ones occur. It is said that the first fishing-boat built with a well (in 1763) was first employed in the scup fishery. In the summer of 1903 these fish practically abandoned these waters, a few were taken in the pounds, and the hand-lining was given up. The first (two) were taken in the pound in 1904 on May 8.

SCIÆNIDÆ.

*Cynoscion regalis (Schneider). ("Squi-dee.")

Common since the bluefish have become scarce. Occasionally taken trolling, but never, as far as we know, have they been fished for with rods—so commonly practiced in the Jersey waters. Large numbers taken in the pounds.

Menticirrhus saxatilis (Schneider). ("Whiting.")

Taken with the mackerel in drift-nets in the spring and are given away, not being very highly esteemed as a food fish.

LABRIDÆ.

Tautogolabrus adspersus (Walbaum). ("Wharf Fish.")

Fished by boys for cat food. Common about the wharves.

Tautoga onitis (Linnæus). ("Tautog.")

Not common. Taken on the scup grounds and in the pounds.

BALISTIDÆ.

*Balistes vetula Linnæus. ("Trigger Fish.")

Taken on the scup grounds. The three secured were taken in the pound in 1903.

TETRAODONTIDÆ.

Spheroides maculatus (Schneider). ("Swell-belly.")

Taken on the scup grounds.

MOLIDÆ.

Mola mola (Linnæus). ("Sun Fish.")

Rare. Seen in deep water on calm days about the island. One taken some years ago was sent by Dr. Harold Williams to Tuffts College, Massachusetts.

COTTIDÆ.

*Myoxocephalus octodecemspinosus (Mitchill). ("Sculpin.")

On scup grounds and in pound. One seen in pound, May 7, 1904.

CYCLOPTERIDÆ.

Cyclopterus lumpus Linnæus. ("Lump Fish.")

One specimen (8 inches long) taken in the pound, May 8, 1904.

TRIGLIDÆ.

*Prionotus carolinus (Linnæus). ("Peter Grunter.")

Common on scup grounds. At times as many as two or three barrels taken in the pound. Not used as food. The senior writer has often eaten them, and finds them excellent. Seen on May 6, 1904.

ECHENEIDIDÆ.

Echeneis naucrates Linnæus. ("Sucker.")

Rare.

MERLUCCIIDÆ.

Merluccius bilinearis (Mitchill). ("Hake.")

But one adult seen. Taken in the trap October, 1903. In the spring of 1902 the young, about 4 inches in length, were very abundant about the wharves.

GADIDÆ.

Polachius virens (Linnæus). ("Pollock.")

Caught trolling off east coast. Since the introduction of the pound they have been taken in great numbers. From April 9 to May 5, 1904, very nearly 20,000 were taken by the *Petrel*.

Gadus callarias Linnæus. ("Cod.")

Taken in the spring and fall by hand-lines and line-trawls on the shoals about the island and occasionally in the Sound at Long Hill. Most of those taken by the Petrel Company are sent away, fresh, in ice, some are pickled and others salted and dried. These fish for the last two years have greatly diminished in number.

Melanogrammus æglefinus (Linnæus). ("Haddock.")

Mostly taken in the spring of the year.

PLEURONECTIDÆ.

Hippoglossus hippoglossus (Linnæus). ("Halibut.")

Many years ago regularly fished for off Great Point. In April, 1904, Mr. Burchell, while cod-fishing off the east end of the island, caught a halibut on a codfish hook, but lost him. He estimated the fish, which he saw, as weighing about 100 pounds.

Paralichthys dentatus (Linnæus). ("Plaice.")

Very common on the bar in the summer of 1903.

Paralichthys oblongus (Mitchill). ("Flounder.")

Two or three taken in the pound early in May, 1904.

Lophopsetta maculata (Mitchill). ("Flat Fish.")

Pseudopleuronectes americanus (Walbaum). ("Winter Flounder.")

Fished for in the harbor in the late fall and early spring.

LOPHIIDÆ.

Lophius piscatorius Linnæus. ("Goose Fish." "Monk Fish.")

About fifty seen at one time in the pound in the fall of 1903, and appeared to average from 50 to 75 pounds apiece.